

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following remarks is respectfully requested.

Claims 28-31 are presently active in this application, Claims 28, 30 and 31 having been amended by the present amendment, and Claims 1-27 previously withdrawn from consideration as directed to a non-elected invention.

In the outstanding Office Action, the specification and Claim 31 were objected to as including informalities requiring correction. Claims 28 and 31 were rejected under 35 USC §112, second paragraph, as being indefinite. Claims 28 and 30-31 were rejected under 35 USC §1093(a) as being unpatentable over Togashi et al (US Pat. 5,691,906) further in view of Iino (US Pat. 5,873,251). Claim 29 was rejected under 35 USC §103(a) as being unpatentable over Togashi and Iino as taught above, further in view of Burrows et al (US Pat 4,725,970).

In response to the objection to the specification and Claim 31, the noted objections have been corrected herewith. Accordingly, withdrawal of the objections is believed to be in order and is respectfully requested.

In response to the rejection under 35 U.S.C. §112, second para., Claim 28 has been amended to clarify the claimed invention. Amended Claim 28 therefore recites that the managing means is --configured to maintain at least one of said determined electric power value and power usage value in design of a production equipment--. Therefore, Applicants do not claim the managing means designs the production equipment for the determined electric power value. Accordingly, this ground for the outstanding rejection of Claim 28 based on 35 U.S.C. §112, second para., is believed to have been overcome.

Applicants traverse the rejection of Claim 31 under 35 U.S.C. §112, second para. The preamble of amended Claim 31 relates to management of the production equipment. The body of Claim 31 relates to manufacturing of the production equipment. Applicants consider that the term “manage” has a wide scope including “manufacture.” Therefore, Applicants’ use of the terms “manage” and “manufacture” in Claim 31 is not considered in conflict and it is requested that Claim 31 be examined accordingly. In addition, the term “said transferred information” in Claim 31 has been changed to -- said received information --.

Applicants respectfully traverse the objection to Applicants’ use of the term “substantially” in Claims 28, 30 and 31 because this term has recognized meaning in the field of claim interpretation. See for example, C.E. Equipment Co. Inc. v. United States, 17 Cl. Ct. 293, 13 USPQ2d 1363, 1368 (Cl. Ct. 1989) (“the term ‘substantially’ in patent claims gives rise to some definitional leeway. ... Patentees may use these terms to avoid unduly limiting the modified word. Thus, the term ‘substantially’ may prevent avoidance of infringement by minor changes that do not affect the results sought and accomplished.”). Applicants use this term to prevent avoidance of infringement by minor changes that do not affect the results sought and accomplished, which is permissible under U.S. jurisprudence. Accordingly, this ground for rejection is traversed and it is respectfully requested that it be withdrawn.

Turning now to the grounds for rejection on the merits, Togashi et al. relates to simulation of a LSI production line, in particular, LSI production condition. For this reason, although Togashi et al. states that all the information from the real production line is transferred, no information of power such as electric power, which does not directly influence the LSI production, is included. In support of Applicants’ position, attention is directed to items (1)-(5) in column 1, lines 62-66 of Togashi et al., and it is noted that these items

transferred from the real production line do not include information on power, whereby it is concluded that information of operation of each of the devices is not considered.

Iino discloses a plant operation control system wherein power is optimized in a factory by simulation. According to Iino, when a factory is operated, the simulation is executed such that, with respect to steam, cooling water, etc., which are produced and supplied in the factory, power to be purchased in the production of the steam, cooling water, etc., is optimized taking into account the cost for the purchase.

In contrast, Applicants' invention optimizes the power to be used by executing control with respect to the operation of each of the manufacturing devices so as to optimize the power in the LSI production line. In a LSI manufacturing factory, hundreds of manufacturing devices are used in one line, and in the power recited in the claims, the value of the power to be used fluctuates in accordance with whether and how the operations of manufacturing devices are executed simultaneously with each other. In this case, power supply equipment needs to be designed at a peak power of the whole line, thus the peak power in the conventional method in which operation of each of the devices is not controlled becomes huge, which requires a large amount of power supply equipment.

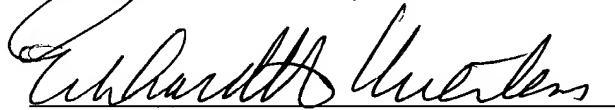
In the present invention, the behavior of the LSI manufacturing device is evaluated by simulation and the peak power is reduced under a condition in which the effect on the LSI production is within a permissible range or less, by controlling the operation timing of the manufacturing device, etc. For this reason, all the information of operation (including breakdown, maintenance, etc.) and information of power of each of the devices is required. Furthermore, Applicants' invention is characterized in that the transition of power of the whole line can be evaluated by simulation based on the information.

It is respectfully submitted that such features are not described in Togashi et al., lino or any of the other prior art references of record, and that such features patentably define over the art of record. Accordingly, the outstanding grounds for rejection on the merits are believed to have been overcome and withdrawal thereof is respectfully requested.

Consequently, in view of the present amendment and in light of the above comments, no further issues are believed to be outstanding, and the present application is believed to be in condition for allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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